



## DATA REPORT AND PROPOSED ADDITIONAL INVESTIGATION

TO: Chris Black, U.S. EPA  
Dave Favero, RACER TRUST  
Grant Trigger, RACER TRUST

FROM: Mike Smith, Applied EcoSystems, Inc.

DATE: August 7, 2015

SUBJECT: RACER Flint West Industrial Land (#12990)  
Summary of Additional Site Investigation

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- Figure 4: Summary of Drinking Water and GSI Exceedances in Groundwater (2012-2015)

### ATTACHMENTS:

- Attachment 1: Cross Section Diagrams
- Attachment 2: Groundwater Analytical Tables (All investigations conducted by RACER to-date)
- Attachment 3: Groundwater Analytical Laboratory Report (May, 2015)
- Attachment 4: Soil Analytical Tables (All investigations conducted by RACER to-date)
- Attachment 5: Groundwater Turbidity Results
- Attachment 6: Groundwater Concentration Graphs

## 1.0 INTRODUCTION

Applied EcoSystems, Inc. (Applied EcoSystems) completed a groundwater monitoring event at the RACER Trust Flint West Industrial Land - #12990 Site on April 28, and 30, 2015 as outlined in the February 13, 2015 Data Report submitted to the United States Environmental Protection Agency (USEPA).

The Site consists of approximately five acres of land located west of Stevens Street and north of Glenwood Avenue in Flint, Genesee County, Michigan. The Site is developed with a Consumers Energy electrical substation in the central portion. Almost the entire Site consists of concrete pavement, remaining after the demolition of a former manufacturing building. The majority of the Site is secured with a locked chain-link fence.

There were no exceptions to the approved USEPA Scope of Work.

## 2.0 INVESTIGATION ACTIVITIES COMPLETED

### Groundwater Monitoring (Task 6)

- All wells were gauged. No NAPL was encountered.
- All wells were sampled, except MW100S, which did not produce sufficient groundwater for sample collection. Samples were analyzed for VOCs, and the following metals (total and dissolved): arsenic, chromium, copper, lead, selenium, and zinc. Analytical results are attached.

### 3.0 INVESTIGATION RESULTS

Comparison of groundwater data to current (December 30, 2013) Michigan Department of Environmental Quality (MDEQ) Generic Residential and Non-Residential Cleanup Criteria (GRCC) indicates the following:

**Metals:** Select metals were detected above drinking water and GSI criteria as shown in the table below. The metals concentrations are consistent with expected regional conditions, do not appear to represent a plume, and are believed to be naturally-occurring. Although the MDEQ has published state-wide and regional “background” concentrations for soils, there are no such values published for groundwater. The concentrations are generally consistent with concentrations encountered by Applied EcoSystems at other uncontaminated sites in the Flint area. Groundwater turbidity results are provided on Attachment 5. The highest turbidity results were observed in MW-104S, MW-105S, MW1-06S, and MW-112S. These wells were also the locations of the highest concentrations of total metals. The dissolved metals concentrations are significantly lower than the concentrations of total metals. Total metals results appear to have been influenced by turbidity. Accordingly, the dissolved metals concentrations are considered to be more representative of site conditions for the purposes of this assessment.

Monitoring well MW100S did not produce sufficient groundwater for sample collection.

**Table 1.0 – Dissolved Metals Exceedances in Groundwater**

Well ID	Metal	Drinking Water Criterion	GSI Criterion	Result
MW-105S	dissolved selenium	50	5	9
MW-112S	dissolved arsenic	10	10	16

All results are expressed in ug/L

**VOCs:** (VOCs comparison includes the updated criteria published by the MDEQ on December 30, 2013). Exceedances were present as follows:

**Table 2.0 – VOCs Exceedances in Groundwater**

Well ID	VOC	Drinking Water Criterion	GSI Criterion	Result
MW-105S	Tetrachloroethene	5	60	69
MW-109S*	Trichloroethene	5	200	138
	Vinyl Chloride	2	13	21
MW-111S	Vinyl Chloride	2	13	4
	Trichloroethene	5	200	78
MW-112S	Vinyl Chloride	2	13	4
MW-113S*	Trichloroethene	5	200	36

- All results are expressed in ug/L

- \* Located on the former railroad property to the north of Flint West #12990.

Criteria in **red** indicate an exceedance for that pathway. Sample analytical results (tabulated results and reports) are attached. Figure 4 illustrates the GSI and drinking water exceedances.

Graphs illustrating concentrations over time of select parameters in select wells are included in Attachment 6. Graphs representing concentrations of the primary constituents of concern for VOCs and metals in key down gradient wells (MW-109S, MW-111S, and MW-113S) as compared to drinking water (DW) and ground to surface water (GSI) interface thresholds for each constituent are included in Attachment 6.

The primary constituents of concern associated with VOCs are Trichloroethene, Tetrachloroethene, Vinyl Chloride, and cis-1,2-Dichloroethene. Elevated concentrations of Trichloroethene persist in each of the down gradient wells. Tetrachloroethene was not detected in any of the down gradient wells. Note that elevated Tetrachloroethene levels have been consistently detected in one up gradient well, MW-105S since April 2012. While one well, MW-109S, still exhibits concentrations of vinyl chloride slightly above DW criteria, concentrations of Vinyl Chloride appear to have significantly decreased overall. Concentrations of cis-1,2-Dichloroethene have been below DW and GSI criteria since April 2014.

Analytical results associated with dissolved metals of concern (Chromium, Lead and Arsenic) in the down gradient wells, identified elevated Chromium in MW-113S. With the exceptions of dissolved Lead exceeding the DW criteria in one event in June 2014 by 1 ppb, no DW or GSI exceedances of dissolved Lead or Arsenic were detected in any of the three down gradient wells.

#### 4.0 PROPOSED ADDITIONAL INVESTIGATION

An additional round of groundwater monitoring is proposed. In addition to the metals and VOCs analysis completed previously, the samples will be analyzed for hexavalent chromium. Other future action is dependent upon USEPA review and comment/approval of the November 1, 2014 Corrective Measures Proposal (CMP).

#### 5.0 PROPOSED SCHEDULE:

Groundwater monitoring is proposed for October 2015. A schedule for any other future activities will be developed upon receipt of comments or approval from USEPA of the CMP.

## FIGURES

## SITE LOCATION MAP

RACER Flint West

**FIGURE**

1

**DATE**

2014

**SCALE**

As Shown

**PROJECT No.**

11-4317-102



Source: United States Geological Survey

Property outline is approximate.



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**Soil Boring and Well Location Map**

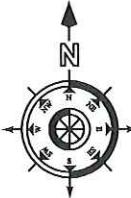
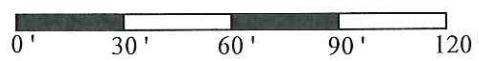
Racer Flint West - 12990  
Flint West Industrial Land, Flint, MI

DATE:	SCALE:
2015	As Shown
PROJECT:	FIGURE:
11-4317-102	2

### LEGEND

- MW Monitoring Well
- SB Soil Boring
- ×— Chain link fence
- Estimated groundwater elevation contours

Approximate Scale in Feet





## ATTACHMENTS

ATTACHMENT #1: CROSS SECTION DIAGRAMS

**No new Cross Section Diagrams to submit at this time.**

ATTACHMENT #2: GROUNDWATER ANALYTICAL TABLES



GROUNDWATER ANALYTICAL DATA  
RACER - Flint West #12990

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected		6/25/14	6/25/14	6/25/14	6/26/14	6/25/14	6/26/14	6/25/14	6/25/14	6/26/14	6/26/14	6/26/14	6/26/14	6/26/14	6/25/14			
ANALYTE (ug/L)	DW	GSI																	
Arsenic (dissolved)	10.00	10.00														19			
Chromium (dissolved)	100.00	160.00	G			51											152		
Copper (dissolved)	1,000.00	20.00	G														4		
Lead (dissolved)	4.00	28.00	G					25	22	23					15		5		
Selenium (dissolved)	50.00	5.00				66			8			6							
Zinc (dissolved)	2,400.00	26.00	G	5	11		10				5	7				8	13		

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected		6/25/14	6/25/14	6/25/14	6/26/14	6/25/14	6/26/14	6/25/14	6/25/14	6/26/14	6/26/14	6/26/14	6/26/14	6/26/14	6/25/14	6/26/14		
ANALYTE (ug/L)	DW	GSI																	
Acetone	730	1,700		1.74	1.45	2.04	2.67	1.55	1.86	1.59	2.82	1.32	1.47	1.29	1.48	4.93	1.32		
Methyl iodide	NC	NC																	
Carbon disulfide	800	NC														0.42	0.36		
2 Butanone (MEK)	13,000	2,200									0.4	0.65	0.29		0.29	1.99			
Chloromethane	260	NC		0.32				0.34									0.29		
Vinyl Chloride	2.0	13														10	21	2	
Chloroethane	430	1,100															2.9		
trichlorofluoromethane	2,600	NA																	
1,1-Dichloroethene	7.0	130														4	2.00	0.39	
Methylene Chloride	5.0	1,500																	
trans-1,2-Dichloroethene	100	1,500														0.7	0.64	0.24	
1,1-Dichloroethane	880	740															1.00	3.00	
cis-1,2-Dichloroethene	70	620		0.62												3	7	59	
Tetrahydrofuran	95	11,000														70.0			
Chloroform	80	350						5.00		0.22		0.5	0.37				0.320		
1,1,1-Trichloroethane	200	89											0.50				1.00		
4-Methyl-2-pentanone (M)	1800	1000000000															0.83		
2-Hexanone	1000	1000000000															1.46		
Carbontetrachloride	5.0	45														2			
Benzene	5.0	200																	
Bromodichloromethane	80.0	NC						0.82											
Trichloroethene	5.0	200		5	1	3				26		2		104		2	24	69	
Toluene	790	270																	
Tetrachloroethene	5.0	60																	
Chlorobenzene	100	25																	
Styrene	100	80																	
Ethylbenzene	74	18																	
Total Xylenes	280	41																	
1,2 -Dichlorobenzene	600	13																	
1,2,4-Trimethylbenzene	63	17																	
1,2,3-Trimethylbenzene	NC	NC																	
Naphthalene	520	11																	
2-Methylnaphthalene	260	19																	

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds residential and non-residential DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

GROUNDWATER ANALYTICAL DATA  
RACER - Flint West #12990

	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2
ANALYTE (ug/L)	DW	GSI															
Arsenic (dissolved)	10.00	10.00	na														
Arsenic	10.00	10.00	29	4	12	na	12	42	13	2	5	16	17	20			
Cadmium (dissolved)	5.00	4.50	GX	na		na	na	na	na	na	na	na	9	400	40	11.00	5.00
Cadmium	5.00	4.50	GX	6.90		na	na	na	na	na	na	na	na	na	na	na	na
Chromium (dissolved)	100.00	1,600.00	G	na	na	7	na	9	6	15			7	7			10
Chromium	100.00	1,600.00	GX	na	na	62	na	17,800	42,600	68,000	14	19	16	69	237	140	822
Copper (dissolved)	1,000.00	20.00	G	na			na										11
Copper	1,000.00	20.00	GX	230	32	22	na	716	802	402	29	31	26	736	22	502	300
Lead (dissolved)	4.00	44.00	G	na			na										
Lead	4.00	44.00	GX	70	21	14	na	6	29	44	6	15	32	249	20	354	289
Selenium (dissolved)	50.00	5.00	na			na		14	5								
Selenium	50.00	5.00				na		16	5								6
Zinc (dissolved)	2,400.00	260.00	G	na	66	na	28		15	9	13	11	25	34	9	23	36
Zinc	2,400.00	260.00	GX	493	74	33	na	29	52	210	27	222	47	556	36	920	504
	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2
ANALYTE (ug/L)	DW	GSI															
Acetone	730	1,700		1.83	2.77		na										42
Methyl iodide	NC	NC				na											
Carbon disulfide	800	NC		0.29		na	0.70										
2 Butanone (MEK)	13,000	2,200		0.55		na											24
Chloromethane	260	NC				na	0.27	0.35	0.33		0.53	0.58	0.86		0.48	0.58	
Vinyl Chloride	2.0	13				na			0.58		12			3			
Chloroethane	430	1,100				na											0.88
trichlorofluoromethane	2,600	NA				na											
1,1-Dichloroethene	7.0	130				na											
Methylene Chloride	5.0	1,500				na											
trans-1,2-Dichloroethene	100	1,500				na											
1,1-Dichloroethane	880	740				na			0.71	1				0.76	0.47		
cis-1,2-Dichloroethene	70	520		1		na			2	0.57	45		1	3	9		0.56
Tetrahydrofuran	95	11,000				na									3	2	
Chloroform	80	350				na	3			2	0.18						
1,1,1-Trichloroethane	200	89				na					0.37					0.29	
4-Methyl-2-pentanone (MIBK)	1800	1000000000				na											3.88
2-Hexanone	1000	1000000000				na											12
Carbontetrachloride	5.0	45				na				2							2
Benzene	5.0	200				na											
Bromodichloromethane	80.0	NC				na	0.54										0.46
Trichloroethene	5.0	200		2	4	0.36	na			5	160		7	61	0.3		
Toluene	790	270				na											
Tetrachloroethene	5.0	60			0.23	na		73			0.2						0.20
Chlorobenzene	100	25				na											
Styrene	100	80				na											
Ethylbenzene	74	18				na											0.17
Total Xylenes	280	41				na											
1,2-Dichlorobenzene	600	13				na											
1,2,4-Trimethylbenzene	63	17				na											
1,2,3-Trimethylbenzene	NC	NC				na											
Naphthalene	520	11				na											
2-Methylnaphthalene	260	19				na											

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
na	Sample not analyzed for this constituent



ATTACHMENT #3: GROUNDWATER ANALYTICAL LABORATORY REPORT



# Analytical Laboratory Report

Report ID: S65446.01(01)  
Generated on 05/11/2015

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**Report to**

Attention: Jesse Anderson  
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Burton, MI 48529  
  
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Email: janderson@appliedecosystems.com

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**Report Summary**

Lab Sample ID(s): S65446.01-S65446.10  
Project: RACER Flint West 12990  
Collected Date: 04/28/2015  
Submitted Date/Time: 04/29/2015 14:05  
Sampled by: Jesse Anderson  
P.O. #: PO219269

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A handwritten signature in black ink, appearing to read "Maya Murshak".

Maya Murshak  
Technical Director



# Analytical Laboratory Report

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## General Report Notes

Results relate only to items tested as received by laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis were applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

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## Report Narrative

There is no additional narrative for this analytical report



# Analytical Laboratory Report

## Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702

## Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

## Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods



# Analytical Laboratory Report

## Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
N/A	Not Applicable
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW8260B	SW 846 Method 8260B Revision 2 December 1996



# Analytical Laboratory Report

## Sample Summary (10 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S65446.01	MW 101S	Groundwater	04/28/2015 11:00
S65446.02	MW 102S	Groundwater	04/28/2015 12:00
S65446.03	MW 112S	Groundwater	04/28/2015 13:00
S65446.04	MW 107S	Groundwater	04/28/2015 14:00
S65446.05	MW 106SR	Groundwater	04/28/2015 15:00
S65446.06	MW 105S	Groundwater	04/28/2015 17:00
S65446.07	MW 104S	Groundwater	04/28/2015 16:00
S65446.08	Duplicate	Groundwater	04/28/2015 00:01
S65446.09	Trip Blank	Water	04/28/2015 10:00
S65446.10	Field Blank	Water	04/28/2015 11:00



# Analytical Laboratory Report

Lab Sample ID: S65446.01  
Sample Tag: MW 101S  
Collected Date/Time: 04/28/2015 11:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	>2	STD Units		N/A	05/01/15 10:40	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 12:38	JRH	0.00023
Arsenic	0.004	mg/L	0.002	E200.8	05/11/15 12:36	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:38	JRH	0.00014
Chromium	0.017	mg/L	0.005	E200.8	05/11/15 12:36	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:38	JRH	0.00019
Copper	0.031	mg/L	0.005	E200.8	05/11/15 12:36	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 12:38	JRH	0.00020
Lead	0.024	mg/L	0.003	E200.8	05/11/15 12:36	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:38	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 12:36	JRH	0.00048
Zinc, Dissolved	0.009	mg/L	0.005	E200.8	05/11/15 12:38	JRH	0.0014
Zinc	0.009	mg/L	0.005	E200.8	05/11/15 12:36	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 16:10	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 16:10	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 16:10	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 16:10	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.33
Chloromethane	4	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 16:10	WAT	0.67
Chloroform	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.28



# Analytical Laboratory Report

Lab Sample ID: S65446.01 (continued)

Sample Tag: MW 101S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.26	
Benzene	0.26	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.16	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.26	
Trichloroethene	2	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.35	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.20	
Toluene	0.71	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.17	J
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 16:10	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:10	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 16:10	WAT	0.12	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.02  
Sample Tag: MW 102S  
Collected Date/Time: 04/28/2015 12:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 12:44	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 12:41	JRH	0.00023
Chromium, Dissolved	0.022	mg/L	0.005	E200.8	05/11/15 12:44	JRH	0.00014
Chromium	0.024	mg/L	0.005	E200.8	05/11/15 12:41	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:44	JRH	0.00019
Copper	0.009	mg/L	0.005	E200.8	05/11/15 12:41	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 12:44	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 12:41	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:44	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 12:41	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:44	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 12:41	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 16:31	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 16:31	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 16:31	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 16:31	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.33
Chloromethane	6	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 16:31	WAT	0.67
Chloroform	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.28



# Analytical Laboratory Report

Lab Sample ID: S65446.02 (continued)

Sample Tag: MW 102S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.26	
Trichloroethene	0.51	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.35	J
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.20	
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 16:31	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:31	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 16:31	WAT	0.12	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.03  
Sample Tag: MW 112S  
Collected Date/Time: 04/28/2015 13:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRH		

## Metals

Arsenic, Dissolved	0.016	mg/L	0.002	E200.8	05/11/15 12:50	JRH	0.00023
Arsenic	0.277	mg/L	0.002	E200.8	05/11/15 12:47	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:50	JRH	0.00014
Chromium	0.009	mg/L	0.005	E200.8	05/11/15 12:47	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:50	JRH	0.00019
Copper	0.014	mg/L	0.005	E200.8	05/11/15 12:47	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 12:50	JRH	0.00020
Lead	0.009	mg/L	0.003	E200.8	05/11/15 12:47	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:50	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 12:47	JRH	0.00048
Zinc, Dissolved	0.039	mg/L	0.005	E200.8	05/11/15 12:50	JRH	0.0014
Zinc	0.039	mg/L	0.005	E200.8	05/11/15 12:47	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 18:12	WAT	0.18	
Acetone	10.0	ug/L	50	SW8260B	04/30/15 18:12	WAT	1.4	J
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.17	
Carbon disulfide	0.16	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.14	J
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 18:12	WAT	0.47	
2-Butanone (MEK)	6.6	ug/L	25	SW8260B	04/30/15 18:12	WAT	4.0	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.33	
Chloromethane	4	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.17	
Vinyl chloride	4	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.33	
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.28	
Chloroethane	5	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.29	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.20	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.24	
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.24	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.22	
1,1-Dichloroethane	0.52	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.23	J
cis-1,2-Dichloroethene	0.66	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.31	J
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 18:12	WAT	0.67	
Chloroform	0.21	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.20	J

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.03 (continued)

Sample Tag: MW 112S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.28	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	1	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.34	
2-Hexanone	3	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.26	
Trichloroethene	0.62	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.35	J
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.20	
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 18:12	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:12	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 18:12	WAT	0.12	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.04  
Sample Tag: MW 107S  
Collected Date/Time: 04/28/2015 14:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 12:55	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 12:52	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:55	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	05/11/15 12:52	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:55	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 12:52	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 12:55	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 12:52	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:55	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 12:52	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 12:55	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 12:52	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 16:51	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 16:51	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 16:51	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 16:51	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.33
Chloromethane	4	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.17
Vinyl chloride	0.60	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.22
1,1-Dichloroethane	0.56	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.23
cis-1,2-Dichloroethene	2	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 16:51	WAT	0.67
Chloroform	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.20

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.04 (continued)

Sample Tag: MW 107S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.28	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.26	
Trichloroethene	2	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.35	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.20	
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 16:51	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 16:51	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 16:51	WAT	0.12	



# Analytical Laboratory Report

Lab Sample ID: S65446.05  
Sample Tag: MW 106SR  
Collected Date/Time: 04/28/2015 15:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
2	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRH		
<b>Metals</b>								
Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 15:31	JRH	0.00023	
Arsenic	0.005	mg/L	0.002	E200.8	05/11/15 13:15	JRH	0.00023	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:31	JRH	0.00014	
Chromium	58.3	mg/L	0.005	E200.8	05/11/15 13:15	JRH	0.00014	
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:31	JRH	0.00019	
Copper	0.306	mg/L	0.005	E200.8	05/11/15 13:15	JRH	0.00019	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 15:31	JRH	0.00020	
Lead	0.026	mg/L	0.003	E200.8	05/11/15 13:15	JRH	0.00020	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:31	JRH	0.00048	
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 13:15	JRH	0.00048	
Zinc, Dissolved	0.120	mg/L	0.005	E200.8	05/11/15 15:31	JRH	0.0014	
Zinc	0.133	mg/L	0.005	E200.8	05/11/15 13:15	JRH	0.0014	
<b>Organics - Volatiles</b>								
<b>Volatile Organics - DEQ List</b>								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/01/15 15:17	WAT	0.18	
Acetone	Not detected	ug/L	50	SW8260B	05/01/15 15:17	WAT	1.4	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.17	
Carbon disulfide	0.17	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.14	J
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/01/15 15:17	WAT	0.47	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/01/15 15:17	WAT	4.0	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.33	
Chloromethane	5	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.17	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.33	
Bromomethane	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.28	
Chloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.29	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.20	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.24	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.24	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.22	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.23	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.31	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/01/15 15:17	WAT	0.67	
Chloroform	0.70	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.20	J

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.05 (continued)

Sample Tag: MW 106SR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.28	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.26	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.35	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.20	
Toluene	0.18	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.17	J
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/01/15 15:17	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/01/15 15:17	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/01/15 15:17	WAT	0.12	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65446.06  
Sample Tag: MW 105S  
Collected Date/Time: 04/28/2015 17:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRB		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 13:23	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 13:20	JRH	0.00023
Chromium, Dissolved	0.008	mg/L	0.005	E200.8	05/11/15 13:23	JRH	0.00014
Chromium	0.829	mg/L	0.005	E200.8	05/11/15 13:20	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 13:23	JRH	0.00019
Copper	0.013	mg/L	0.005	E200.8	05/11/15 13:20	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 13:23	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 13:20	JRH	0.00020
Selenium, Dissolved	0.009	mg/L	0.005	E200.8	05/11/15 13:23	JRH	0.00048
Selenium	0.009	mg/L	0.005	E200.8	05/11/15 13:20	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 13:23	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 13:20	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 18:32	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 18:32	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 18:32	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 18:32	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.33
Chloromethane	5	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 18:32	WAT	0.67
Chloroform	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.28



# Analytical Laboratory Report

Lab Sample ID: S65446.06 (continued)

Sample Tag: MW 105S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.26	
Trichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.35	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.20	
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.29	
Tetrachloroethene	69	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 18:32	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 18:32	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 18:32	WAT	0.12	



# Analytical Laboratory Report

Lab Sample ID: S65446.07  
Sample Tag: MW 104S  
Collected Date/Time: 04/28/2015 16:00  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 13:29	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 13:26	JRH	0.00023
Chromium, Dissolved	0.005	mg/L	0.005	E200.8	05/11/15 13:29	JRH	0.00014
Chromium	1.59	mg/L	0.005	E200.8	05/11/15 13:26	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 13:29	JRH	0.00019
Copper	0.040	mg/L	0.005	E200.8	05/11/15 13:26	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 13:29	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 13:26	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 13:29	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 13:26	JRH	0.00048
Zinc, Dissolved	0.008	mg/L	0.005	E200.8	05/11/15 13:29	JRH	0.0014
Zinc	0.008	mg/L	0.005	E200.8	05/11/15 13:26	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 17:32	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 17:32	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 17:32	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 17:32	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.33
Chloromethane	6	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 17:32	WAT	0.67
Chloroform	1	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.28



# Analytical Laboratory Report

Lab Sample ID: S65446.07 (continued)

Sample Tag: MW 104S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.26	
Trichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.35	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.20	
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 17:32	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:32	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 17:32	WAT	0.12	



# Analytical Laboratory Report

Lab Sample ID: S65446.08  
Sample Tag: Duplicate  
Collected Date/Time: 04/28/2015 00:01  
Matrix: Groundwater  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.2	IR
1	125ml Plastic	HNO3	Yes	5.2	IR
3	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:00	JRH		
pH check for VOCs	<2	STD Units		N/A	05/01/15 10:40	LRB		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 13:37	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 13:34	JRH	0.00023
Chromium, Dissolved	0.010	mg/L	0.005	E200.8	05/11/15 13:37	JRH	0.00014
Chromium	0.016	mg/L	0.005	E200.8	05/11/15 13:34	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 13:37	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 13:34	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 13:37	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 13:34	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 13:37	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 13:34	JRH	0.00048
Zinc, Dissolved	0.011	mg/L	0.005	E200.8	05/11/15 13:37	JRH	0.0014
Zinc	0.011	mg/L	0.005	E200.8	05/11/15 13:34	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 17:52	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 17:52	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 17:52	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 17:52	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.33
Chloromethane	4	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 17:52	WAT	0.67
Chloroform	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.28



# Analytical Laboratory Report

Lab Sample ID: S65446.08 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.34	
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.38	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.26	
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.16	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.26	
Trichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.35	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.26	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.31	
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.39	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.20	
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.17	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.29	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.21	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.46	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.13	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.19	
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 17:52	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 17:52	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 17:52	WAT	0.12	



# Analytical Laboratory Report

Lab Sample ID: S65446.09  
Sample Tag: Trip Blank  
Collected Date/Time: 04/28/2015 10:00  
Matrix: Water  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
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### Extraction / Prep.

pH check for VOCs	<2	STD Units	N/A	05/01/15 10:40	LRB
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## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 15:11	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 15:11	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 15:11	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 15:11	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.33
Chloromethane	4	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 15:11	WAT	0.67
Chloroform	3	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.28
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.28
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.34
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.38
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.26
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.16
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.26
Trichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.35
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.26
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.31
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.39
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.20
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.17
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.17
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.29
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.21
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.46
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.13
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.19



# Analytical Laboratory Report

Lab Sample ID: S65446.09 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 15:11	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:11	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 15:11	WAT	0.12	



# Analytical Laboratory Report

Lab Sample ID: S65446.10  
Sample Tag: Field Blank  
Collected Date/Time: 04/28/2015 11:00  
Matrix: Water  
COC Reference: 73377

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
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### Extraction / Prep.

pH check for VOCs	<2	STD Units	N/A	05/01/15 10:40	LRB
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## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	04/30/15 15:31	WAT	0.18
Acetone	Not detected	ug/L	50	SW8260B	04/30/15 15:31	WAT	1.4
Methyl iodide	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.17
Carbon disulfide	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.14
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	04/30/15 15:31	WAT	0.47
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	04/30/15 15:31	WAT	4.0
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.33
Chloromethane	3	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.17
Vinyl chloride	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.33
Bromomethane	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.28
Chloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.29
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.20
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.24
Methylene chloride	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.24
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.22
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.23
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.31
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	04/30/15 15:31	WAT	0.67
Chloroform	3	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.20
Bromochloromethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.28
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.28
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.34
2-Hexanone	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.38
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.26
Benzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.16
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.26
Trichloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.35
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.26
Bromodichloromethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.31
Dibromomethane	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.39
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.20
Toluene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.17
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.17
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.29
Tetrachloroethene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.21
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.46
Dibromochloromethane	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.13
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.19



# Analytical Laboratory Report

Lab Sample ID: S65446.10 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Chlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.23	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.12	
Ethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.22	
p,m-Xylene	Not detected	ug/L	2	SW8260B	04/30/15 15:31	WAT	0.40	
o-Xylene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.20	
Styrene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.19	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.24	
Bromoform	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.29	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.47	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.58	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.13	
Bromobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.20	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.25	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.29	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.23	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.22	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.20	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.21	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.17	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.14	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.15	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	04/30/15 15:31	WAT	0.12	
Hexachloroethane	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.29	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.26	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.18	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.21	
Naphthalene	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.23	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	04/30/15 15:31	WAT	0.12	

# Merit

Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823  
Phone (517) 332-0167 Fax (517) 332-4034  
www.meritlabs.com

C.O.C. PAGE # \_\_\_\_\_ OF \_\_\_\_\_

73377

## REPORT TO

CONTACT NAME			
COMPANY			
ADDRESS			
CITY		STATE	ZIP CODE
PHONE NO.	FAX NO.	P.O. NO.	
E-MAIL ADDRESS		QUOTE NO.	

## CHAIN OF CUSTODY RECORD

## INVOICE TO

CONTACT NAME	<i>JESSIE ANDERSON</i>	<input type="checkbox"/> SAME	
COMPANY	APPLIED ECO SYSTEMS		
ADDRESS			
CITY	DE_MOS @ MOLTOB.COM	STATE	ZIP CODE
PHONE NO.	E-MAIL ADDRESS	<i>JANDERSON @ APPLIED ECO SYSTEMS .COM</i>	

## ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME *Flint West 12990*

SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED  1 DAY  2 DAYS  3 DAYS  STANDARD  OTHER

DELIVERABLES REQUIRED  STD  LEVEL II  LEVEL III  LEVEL IV  EDD  OTHER

MATRIX GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID  
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

MERIT LAB NO. <i>6511001</i>	YEAR <i>4/28/15</i>	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX <i>GW</i>	# OF BOTTLES <i>1</i>	# Containers & Preservatives	Certifications						
						NONE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	MeOH	OTHER
<i>6511001</i>	<i>4/28/15</i>	<i>11 am MW 101 f</i>	<i>GW</i>	<i>1</i>		<i>X</i>	<i>X</i>	<i>X</i>				
<i>6511001</i>	<i>4/28/15 .02</i>	<i>12 pm MW 102 f</i>										
<i>6511001</i>	<i>.03</i>	<i>1 pm MW 112 f</i>										
<i>6511001</i>	<i>.04</i>	<i>2 pm MW 107 f</i>										
<i>6511001</i>	<i>.05</i>	<i>3 pm MW 106 fr</i>										
<i>6511001</i>	<i>.06</i>	<i>5 pm mw 105 f</i>										
<i>6511001</i>	<i>.07</i>	<i>4 pm mw 104 f</i>		<i>1</i>								
<i>6511001</i>	<i>.08</i>	<i>4/28/15 - Duplicate</i>	<i>GW</i>									
<i>6511001</i>	<i>.09</i>	<i>10 am Trip Blank</i>	<i>W</i>									
<i>6511001</i>	<i>.10</i>	<i>11 am Field Blank</i>	<i>W</i>									

RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>Jessie Anderson</i>	<input type="checkbox"/> Sampler	DATE <i>4/29</i>	TIME <i>8:40</i>
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>John Dinkman</i>	<input type="checkbox"/>	DATE <i>4/29/15</i>	TIME <i>0845</i>
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>John Dinkman</i>	<input type="checkbox"/> Sampler	DATE <i>4/29/15</i>	TIME <i>11:53</i>
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>Michael Dinkman</i>	<input type="checkbox"/>	DATE <i>4/29/15</i>	TIME <i>1405</i>
SEAL NO.	SEAL INTACT <input type="checkbox"/> YES <input type="checkbox"/> NO	INITIALS	NOTES:	TEMP. ON ARRIVAL <i>52</i>
SEAL NO.	SEAL INTACT <input type="checkbox"/> YES <input type="checkbox"/> NO	INITIALS		

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



# Analytical Laboratory Report

Report ID: S65499.01(01)  
Generated on 05/11/2015

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## Report to

Attention: Jesse Anderson  
Applied Ecosystems  
G4300 S. Saginaw St.  
Burton, MI 48529  
  
Phone: 248-688-2475 FAX: 810-715-2526  
Email: janderson@appliedecosystems.com

---

## Report produced by

Merit Laboratories, Inc.  
2680 East Lansing Drive  
East Lansing, MI 48823  
  
Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:  
Kevin George (kgeorge@meritlabs.com)  
Barbara Ball (bball@meritlabs.com)

---

## Report Summary

Lab Sample ID(s): S65499.01-S65499.09  
Project: RACER Flint West  
Collected Date: 04/30/2015  
Submitted Date/Time: 05/01/2015 15:10  
Sampled by: Unknown  
P.O. #: PO219269

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## Table of Contents

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Glossary of Abbreviations (Page 3)  
Method Summary (Page 4)  
Sample Summary (Page 5)

A handwritten signature in black ink, appearing to read "Maya Murshak".

Maya Murshak  
Technical Director



# Analytical Laboratory Report

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## General Report Notes

Results relate only to items tested as received by laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis were applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

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## Report Narrative

There is no additional narrative for this analytical report



# Analytical Laboratory Report

## Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702

## Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

## Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods



# Analytical Laboratory Report

## Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
N/A	Not Applicable
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW8260B	SW 846 Method 8260B Revision 2 December 1996



# Analytical Laboratory Report

## Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S65499.01	MW 110S	Groundwater	04/30/2015 00:01
S65499.02	MW 113S	Groundwater	04/30/2015 00:01
S65499.03	MW 109S	Groundwater	04/30/2015 00:01
S65499.04	MW 108S	Groundwater	04/30/2015 00:01
S65499.05	MW 111S	Groundwater	04/30/2015 00:01
S65499.06	MW 103S	Groundwater	04/30/2015 00:01
S65499.07	Duplicate	Groundwater	04/30/2015 00:01
S65499.08	Field Blank	Groundwater	04/30/2015 00:01
S65499.09	Trip Blank	Groundwater	04/30/2015 00:01



# Analytical Laboratory Report

Lab Sample ID: S65499.01  
Sample Tag: MW 110S  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 14:11	JRH	0.00023
Arsenic	0.002	mg/L	0.002	E200.8	05/11/15 14:08	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:11	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	05/11/15 14:08	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:11	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 14:08	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 14:11	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 14:08	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:11	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 14:08	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:11	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 14:08	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/15 14:57	LRH	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/06/15 14:57	LRH	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LRH	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LRH	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/15 14:57	LRH	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/15 14:57	LRH	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LRH	0.57
Chloromethane	5	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.20
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LRH	0.18
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LRH	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LRH	0.16
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.14
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.15
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/15 14:57	LRH	1.2
Chloroform	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.15
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LRH	0.36



# Analytical Laboratory Report

Lab Sample ID: S65499.01 (continued)

Sample Tag: MW 110S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/15 14:57	LBR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/15 14:57	LBR	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/15 14:57	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/15 14:57	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/15 14:57	LBR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S65499.02  
Sample Tag: MW 113S  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 14:18	JRH	0.00023
Arsenic	0.006	mg/L	0.002	E200.8	05/11/15 14:15	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:18	JRH	0.00014
Chromium	0.073	mg/L	0.005	E200.8	05/11/15 14:15	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:18	JRH	0.00019
Copper	0.012	mg/L	0.005	E200.8	05/11/15 14:15	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 14:18	JRH	0.00020
Lead	0.011	mg/L	0.003	E200.8	05/11/15 14:15	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:18	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 14:15	JRH	0.00048
Zinc, Dissolved	0.022	mg/L	0.005	E200.8	05/11/15 14:18	JRH	0.0014
Zinc	0.022	mg/L	0.005	E200.8	05/11/15 14:15	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 15:20	LRH	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 15:20	LRH	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LRH	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LRH	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 15:20	LRH	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 15:20	LRH	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LRH	0.57
Chloromethane	2	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.20
Vinyl chloride	2	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LRH	0.18
Chloroethane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LRH	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LRH	0.16
trans-1,2-Dichloroethene	0.26	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.14
1,1-Dichloroethane	3	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.15
cis-1,2-Dichloroethene	19	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 15:20	LRH	1.2
Chloroform	0.19	ug/L	1	SW8260B	05/05/15 15:20	LRH	0.15

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.02 (continued)

Sample Tag: MW 113S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 15:20	LBR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 15:20	LBR	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.17	
Trichloroethene	36	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 15:20	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:20	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 15:20	LBR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S65499.03  
Sample Tag: MW 109S  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 14:23	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 14:20	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:23	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	05/11/15 14:20	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:23	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 14:20	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 14:23	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 14:20	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:23	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 14:20	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:23	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 14:20	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 15:40	LRH	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 15:40	LRH	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LRH	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LRH	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 15:40	LRH	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 15:40	LRH	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LRH	0.57
Chloromethane	4	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.20
Vinyl chloride	21	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LRH	0.18
Chloroethane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LRH	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.28
1,1-Dichloroethene	4	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LRH	0.16
trans-1,2-Dichloroethene	1	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.14
1,1-Dichloroethane	2	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.15
cis-1,2-Dichloroethene	51	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 15:40	LRH	1.2
Chloroform	0.28	ug/L	1	SW8260B	05/05/15 15:40	LRH	0.15

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.03 (continued)

Sample Tag: MW 109S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.36	
1,1,1-Trichloroethane	0.51	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.27	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 15:40	LBR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 15:40	LBR	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.17	
Trichloroethene	138	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 15:40	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 15:40	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 15:40	LBR	0.21	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.04  
Sample Tag: MW 108S  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 14:46	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	05/11/15 14:43	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:46	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	05/11/15 14:43	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:46	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 14:43	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 14:46	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 14:43	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:46	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 14:43	JRH	0.00048
Zinc, Dissolved	0.006	mg/L	0.005	E200.8	05/11/15 14:46	JRH	0.0014
Zinc	0.006	mg/L	0.005	E200.8	05/11/15 14:43	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 16:00	LRH	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 16:00	LRH	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LRH	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LRH	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 16:00	LRH	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 16:00	LRH	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LRH	0.57
Chloromethane	4	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.20
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LRH	0.18
Chloroethane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LRH	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LRH	0.16
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.14
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.15
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 16:00	LRH	1.2
Chloroform	1	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.15
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LRH	0.36



# Analytical Laboratory Report

Lab Sample ID: S65499.04 (continued)

Sample Tag: MW 108S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 16:00	LBLR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 16:00	LBLR	0.19	
Carbon tetrachloride	2	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 16:00	LBLR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:00	LBLR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 16:00	LBLR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S65499.05  
Sample Tag: MW 111S  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	05/11/15 14:51	JRH	0.00023
Arsenic	0.006	mg/L	0.002	E200.8	05/11/15 14:49	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:51	JRH	0.00014
Chromium	0.029	mg/L	0.005	E200.8	05/11/15 14:49	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:51	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 14:49	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 14:51	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 14:49	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:51	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 14:49	JRH	0.00048
Zinc, Dissolved	0.009	mg/L	0.005	E200.8	05/11/15 14:51	JRH	0.0014
Zinc	0.009	mg/L	0.005	E200.8	05/11/15 14:49	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 16:20	LRH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 16:20	LRH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LRH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LRH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 16:20	LRH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 16:20	LRH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LRH	0.57	
Chloromethane	5	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.20	
Vinyl chloride	4	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LRH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LRH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.28	
1,1-Dichloroethene	0.88	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.27	J
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LRH	0.16	
trans-1,2-Dichloroethene	0.99	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.14	J
1,1-Dichloroethane	2	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.15	
cis-1,2-Dichloroethene	48	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 16:20	LRH	1.2	
Chloroform	0.29	ug/L	1	SW8260B	05/05/15 16:20	LRH	0.15	J

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.05 (continued)

Sample Tag: MW 111S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.36	
1,1,1-Trichloroethane	0.36	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.27	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 16:20	LBR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 16:20	LBR	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.17	
Trichloroethene	78	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 16:20	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:20	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 16:20	LBR	0.21	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.06  
Sample Tag: MW 103S  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	0.006	mg/L	0.002	E200.8	05/11/15 14:57	JRH	0.00023
Arsenic	0.023	mg/L	0.002	E200.8	05/11/15 14:54	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:57	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	05/11/15 14:54	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:57	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 14:54	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 14:57	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 14:54	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:57	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 14:54	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 14:57	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 14:54	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 16:40	LRH	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 16:40	LRH	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LRH	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LRH	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 16:40	LRH	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 16:40	LRH	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LRH	0.57
Chloromethane	2	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.20
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LRH	0.18
Chloroethane	0.70	ug/L	5	SW8260B	05/05/15 16:40	LRH	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LRH	0.16
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.14
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.15
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 16:40	LRH	1.2
Chloroform	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LRH	0.15

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.06 (continued)

Sample Tag: MW 103S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 16:40	LBR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 16:40	LBR	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.19	
Benzene	0.23	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.11	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 16:40	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.16	
Styrene	0.15	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.13	J
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 16:40	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 16:40	LBR	0.21	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.07  
Sample Tag: Duplicate  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	5.1	IR
1	125ml Plastic	HNO3	Yes	5.1	IR
3	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Extraction / Prep.</b>								
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
Metal Digestion	Completed			SW3015A	05/11/15 09:40	JRH		
pH check for VOCs	<2	STD Units		N/A	05/06/15 10:53	LRH		

## Metals

Arsenic, Dissolved	0.006	mg/L	0.002	E200.8	05/11/15 15:03	JRH	0.00023
Arsenic	0.020	mg/L	0.002	E200.8	05/11/15 15:00	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:03	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	05/11/15 15:00	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:03	JRH	0.00019
Copper	Not detected	mg/L	0.005	E200.8	05/11/15 15:00	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	05/11/15 15:03	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	05/11/15 15:00	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:03	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	05/11/15 15:00	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	05/11/15 15:03	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	05/11/15 15:00	JRH	0.0014

## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 17:00	LRH	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 17:00	LRH	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LRH	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LRH	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 17:00	LRH	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 17:00	LRH	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LRH	0.57
Chloromethane	3	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.20
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LRH	0.18
Chloroethane	0.77	ug/L	5	SW8260B	05/05/15 17:00	LRH	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LRH	0.16
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.14
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.15
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 17:00	LRH	1.2
Chloroform	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LRH	0.15

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.07 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 17:00	LBR	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 17:00	LBR	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.19	
Benzene	0.25	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.11	J
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.12	
Chlorobenzene	0.17	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.16	J
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 17:00	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.16	
Styrene	0.21	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.13	J
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:00	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 17:00	LBR	0.21	

J-Estimated value less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S65499.08  
Sample Tag: Field Blank  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
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### Extraction / Prep.

pH check for VOCs	<2	STD Units	N/A	05/06/15 10:53	LRB
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## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 17:20	LRB	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 17:20	LRB	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 17:20	LRB	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 17:20	LRB	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.57
Chloromethane	3	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.20
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.18
Chloroethane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.16
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.14
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.15
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 17:20	LRB	1.2
Chloroform	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.15
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.36
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.27
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 17:20	LRB	0.35
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 17:20	LRB	0.19
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.19
Benzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.11
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.17
Trichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.29
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.18
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.19
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.45
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.17
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.17
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.20
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.34
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.13
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.26
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LRB	0.20
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LRB	0.12



# Analytical Laboratory Report

Lab Sample ID: S65499.08 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 17:20	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:20	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 17:20	LBR	0.21	



# Analytical Laboratory Report

Lab Sample ID: S65499.09  
Sample Tag: Trip Blank  
Collected Date/Time: 04/30/2015 00:01  
Matrix: Groundwater  
COC Reference: 85300

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
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### Extraction / Prep.

pH check for VOCs	<2	STD Units	N/A	05/06/15 10:53	LRB
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## Organics - Volatiles

### Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	05/05/15 17:40	LRB	0.27
Acetone	Not detected	ug/L	50	SW8260B	05/05/15 17:40	LRB	4.0
Methyl iodide	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.24
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.13
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.25
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/05/15 17:40	LRB	0.38
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/05/15 17:40	LRB	3.3
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.57
Chloromethane	4	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.20
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.24
Bromomethane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.18
Chloroethane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.21
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.28
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.16
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.14
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.15
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.21
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/05/15 17:40	LRB	1.2
Chloroform	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.15
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.36
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.27
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/05/15 17:40	LRB	0.35
2-Hexanone	Not detected	ug/L	50	SW8260B	05/05/15 17:40	LRB	0.19
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.19
Benzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.11
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.17
Trichloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.29
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.18
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.19
Dibromomethane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.45
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.17
Toluene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.17
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.20
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.34
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.13
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.26
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LRB	0.20
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LRB	0.12



# Analytical Laboratory Report

Lab Sample ID: S65499.09 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
<b>Organics - Volatiles (continued)</b>								
<b>Volatile Organics - DEQ List (continued)</b>								
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/05/15 17:40	LBR	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/05/15 17:40	LBR	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/05/15 17:40	LBR	0.21	



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C.O.C. PAGE # 1 OF 1

85300

**REPORT TO**

CONTACT NAME			
COMPANY			
ADDRESS			
CITY		STATE	ZIP CODE
PHONE NO.	FAX NO.	P.O. NO.	
E-MAIL ADDRESS		QUOTE NO.	

**CHAIN OF CUSTODY RECORD**

**INVOICE TO**

CONTACT NAME	<input type="checkbox"/> SAME
COMPANY	
ADDRESS	
CITY	STATE ZIP CODE
PHONE NO.	E-MAIL ADDRESS

**ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)**

PROJECT NO./NAME **Rocer Flint West** SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED  1 DAY  2 DAYS  3 DAYS X STANDARD  OTHER

DELIVERABLES REQUIRED  STD  LEVEL II  LEVEL III X LEVEL IV  EDD  OTHER

MATRIX GW=GROUNDWATER WW=WASTEWATER S=SOIL L=Liquid SD=SOLID  
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives						VOC's	Total Metals	Dissolved Metals	Certifications
					None	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	MeOH				
65499.01	4/30 .02	nW 110 S	GW S	X 3 X							X	X X		<input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water
	.03	nW 113 S												<input type="checkbox"/> DoD <input type="checkbox"/> NPDES
	.04	nW 109 S												Project Locations
	.05	nW 108 S												<input type="checkbox"/> Detroit <input type="checkbox"/> New York
	.06	nW 111 S												<input type="checkbox"/> Other
	.07	nW 103 S												Special Instructions
	.08	4/30 0plicate			X X									
	.09	4/30 Field Blank			X X									
		TRIP Blank			X X									

RELINQUISHED BY:  Sampler DATE TIME

SIGNATURE/ORGANIZATION

RECEIVED BY:  DATE TIME

SIGNATURE/ORGANIZATION

RELINQUISHED BY:  DATE TIME

SIGNATURE/ORGANIZATION

RECEIVED BY:  DATE TIME

SIGNATURE/ORGANIZATION

RELINQUISHED BY: SIGNATURE/ORGANIZATION	RECEIVED BY: SIGNATURE/ORGANIZATION	SEAL NO.	SEAL INTACT YES <input type="checkbox"/> NO <input type="checkbox"/>	INITIALS	NOTES:	TEMP. ON ARRIVAL
<i>Jenny Clark</i>	<i>Michael Dunkman</i>	51115 0733	YES <input type="checkbox"/>			5/15 1510
		51115 0730	YES <input type="checkbox"/>			5/15

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

ATTACHMENT #4: SOIL ANALYTICAL TABLES

SOIL ANALYTICAL DATA (Metals and Detected VOCs)  
RACER - Flint West #12990

	Sample ID		SB124-4	SB124-10	SB124-21	SB125-4	SB125-13	SB125-19	SB126-4	SB126-11	SB126-15	SB127-4	SB127-8	SB127-15	SB127-20	SB128-3	SB128-7	SB128-10	SB129-4	SB129-8	SB129-18	SB130-4	SB130-10	SB130-18	SB131-4	SB131-10	SB131-18		
	Date Collected		4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14			
ANALYTE (ug/kg)	DW	GSI																											
Arsenic	5,800.00	5,800.00	D&G=B	1,130.00	1,100.00	1,830.00	570.00	1,440.00	1,410.00	1,300.00	1,250.00	1,180.00	410.00	1,630.00	2,060.00	1,780.00	500.00	1,550.00	1,150.00	2,790.00	1,740.00	1,460.00	3,580.00	1,700.00	1,980.00	1,630.00	1,300.00	2,080.00	
Chromium	18,000.00	18,000.00	D&G=B	1,220.00	1,460.00	3,350.00	2,050.00	3,260.00	4,240.00	1,220.00	2,920.00	2,870.00	1,980.00	2,560.00	4,540.00	610.00	1,460.00	2,860.00	5,890.00	2,550.00	4,080.00	4,730.00	3,090.00	1,150.00	2,770.00	1,640.00	2,800.00	2,620.00	
Copper	5,800,000.00	120,000.00	GX	1,700.00	2,300.00	8,200.00	7,400.00	6,100.00	11,400.00	3,400.00	5,600.00	1,600.00	3,000.00	5,800.00	1,200.00	3,900.00	5,600.00	5,300.00	13,000.00	3,600.00	7,200.00	17,700.00	1,700.00	9,800.00	8,500.00	3,100.00	7,900.00		
Lead	700,000.00	5,000,000.00	GX	2,510.00	3,120.00	7,580.00	13,800.00	5,100.00	8,590.00	2,280.00	3,790.00	5,470.00	4,710.00	5,740.00	7,330.00	950.00	6,250.00	11,400.00	6,950.00	104,000.00	6,100.00	7,420.00	123,000.00	2,110.00	6,510.00	36,400.00	4,740.00	6,020.00	
Selenium	4,000.00	410.00	G=B					210.00				210.00				160.00					130.00		150.00	140.00					
Zinc	2,400,000.00	2,600,000.00	G=B	4,600.00	5,100.00	19,000.00	11,400.00	12,200.00	20,800.00	5,900.00	8,600.00	14,700.00	3,700.00	10,300.00	20,300.00	2,400.00	6,000.00	13,200.00	9,900.00	21,300.00	13,100.00	19,200.00	51,800.00	5,800.00	18,000.00	16,800.00	13,600.00	18,600.00	
ANALYTE (ug/kg)	DW	GSI																											
2 Butanone (MEK)	260,000.00	44,000.00		45.00	71.00	56.00		165.00	79.00	82.00	150.00	75.00	46.00	66.00	148.00	126.00	44.00	123.00	127.00	40.00	53.00	82.00	69.00	68.00	70.00	79.00	65.00	164.00	
Vinyl Chloride	40.00	260.00							23.00														73.00				90.00		
1,1-Dichloroethene	140.00	2,600.00																								34.00			18.00
trans-1,2-Dichloroethene	2,000.00	30,000.00																								100.00			62.00
1,1-Dichloroethane	18,000.00	15,000.00																								69.00			35.00
cis-1,2-Dichloroethene	1,400.00	12,000.00				58.00			350.00											300.00			6,380.00				2,820.00		
Tetrahydrofuran	1,900.00	220,000.00		170.00	190.00	190.00	150.00	180.00	180.00	140.00	190.00	210.00	190.00	190.00	170.00	190.00	150.00	150.00	140.00	150.00	180.00	180.00	170.00	160.00	150.00	180.00	160.00		
Chloroform	1,600.00	7,000.00								16.00																			
1,1,1-Trichloroethane	4,000.00	1,800.00								11.00												33.40							
Benzene	100.00	4,000.00																					36.00						
Trichloroethylene	100.00	4,000.00																					6,170.00			28.00		12,160.00	
Toluene	16,000.00	5,400.00			11.00																13.00		19.00	31.00			45.00		
Ethylbenzene	1,500.00	360.00																								15.00			
Total Xylenes	5,600.00	820.00																			21.00			92.00			91.00		
Isopropylbenzene	91,000.00	3,200.00																			16.00			13.00					
n-Propylbenzene	1,600.00	NC																								16.00			
1,2-Dichlorobenzene	14,000.00	280.00																			21.00								
1,2,4-Trimethylbenzene	2,100.00	570.00																			14.00			24.00			22.00		
1,2,3-Trimethylbenzene	NC	NC																			13.50			13.40			11.80		
Naphthalene	35,000.00	730.00		10.80				14.40	17.00		13.70					12.90	14.30				345.70	46.90	39.50	12.50	51.50		100.30		
2-Methylnaphthalene	57,000.00	4,200.00		10.20				14.00	39.00		13.00	19.00					30.00		10.00	820.00	46.00	43.00		54.10		71.80			

## SOIL ANALYTICAL DATA (Detected VOCs)

RACER - Flint West #12990

	Sample ID		SB132-12	SB132-15	SB133-17	SB133-19	SB133-20
	Date Collected		7/10/14	7/10/14	7/10/14	7/10/14	7/10/14
ANALYTE (ug/kg)	DW	GSI					
2 Butanone (MEK)	260,000.00	44,000.00					
Vinyl Chloride	40.00	260.00		180	89	46	
1,1-Dichloroethene	140.00	2,600.00					
trans-1,2-Dichloroethene	2,000.00	30,000.00			18.00		
1,1-Dichloroethane	18,000.00	15,000.00			13.00		
cis-1,2-Dichloroethene	1,400.00	12,000.00	2200.00	1200.00	1990.00	530.00	270.00
Tetrahydrofuran	1,900.00	220,000.00		1500.00	300.00	150.00	160.00
Chloroform	1,600.00	7,000.00					
1,1,1-Trichloroethane	4,000.00	1,800.00			24.90	35.20	17.80
Benzene	100.00	4,000.00					
Trichloroethene	100.00	4,000.00	29500	13700	11680	10860	7520
Tetrachloroethene	100.00	1,200.00				17	
Toluene	16,000.00	5,400.00					
Ethylbenzene	1,500.00	360.00					
Total Xylenes	5,600.00	820.00					
Isopropylbenzene	91,000.00	3,200.00					
n-Propylbenzene	1,600.00	NC					
1,2 -Dichlorobenzene	14,000.00	280.00					
1,2,4-Trimethylbenzene	2,100.00	570.00					
1,2,3-Trimethylbenzene	NC	NC					
Naphthalene	35,000.00	730.00					
2-Methylnaphthalene	57,000.00	4,200.00			15.00	12.00	9.20

## NOTES:

	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
GX	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

SOIL ANALYTICAL DATA  
RACER - Flint West #12990

		Sample ID	SB134-18	SB135-19	SB136-19	SB137-18	SB134-20	SB135-21	SB136-21	SB137-20.5
		Date Collected	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14	12/22/14
ANALYTE (ug/kg)	DW	GSI								
Arsenic	4,600	4,600	380	1,900	1,870	1,660	1,690	2,080	3,350	3,040
Cadmium	6,000	5,400	G							
Copper	5,800,000	120,000	G	4,500	4,000	4,600	4,200	3,000	3,900	4,300
Lead	700,000	7,700,000	G	5,690	2,850	3,060	2,810	3,380	2,890	3,740
Selenium	4,000	400								
Zinc	2,400,000	260,000	G	5,900	17,500	13,600	13,500	19,500	15,300	18,800
2 Butanone (MEK)	260,000	44,000								
Vinyl Chloride	40	260			14					56
1,1-Dichloroethene	140	2,600								
trans-1,2-Dichloroethene	2,000	30,000			10.9		14			
1,1-Dichloroethane	18,000	15,000								
cis-1,2-Dichloroethene	1,400	12,000			1,100	340	670	120	800	450
Tetrahydrofuran	1,900	220,000								
Chloroform	1,600	7,000								
1,1,1-Trichloroethane	4,000	1,800				12.5	20.5		8.7	
Benzene	100	4,000								
Trichloroethene	100	4,000			7,890	8,760	4,250	2,040	6,540	9,390
Tetrachloroethene	100	1,200								
Toluene	16,000	5,400		70						
Ethylbenzene	1,500	360		16						
Total Xylenes	5,600	820		85						
Isopropylbenzene	91,000	3,200								
n-Propylbenzene	1,600	NC		14						
1,2 -Dichlorobenzene	14,000	280								
1,2,4-Trimethylbenzene	2,100	570								
1,2,3-Trimethylbenzene	NC	NC								
Naphthalene	35,000	730		36.6						
2-Methylnaphthalene	57,000	4,200		29						

NOTES:

X	Blank cells indicate no detectable concentrations
X	Exceeds residential and non-residential DW criteria
X	Exceeds GSI criteria calculated based on 257ppm total hardness in the Flint River
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
GX	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

ATTACHMENT #5: GROUNDWATER TURBIDITY AND METALS DATA

## GROUNDWATER Turbidity and METALS ANALYTICAL DATA

RACER - Flint West #12990

May 2015

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S
	Date Collected		DRY	4/28/15	4/28/15	4/30/15	4/28/15	4/28/15	4/28/15	4/28/15	4/30/15	4/30/15	4/30/15	4/30/15	4/28/15	4/30/15
ANALYTE (ug/L)	DW	GSI														
Arsenic (dissolved)	10	10					6								16	
Arsenic	10	10			4		23			5				2	6	277
Chromium (dissolved)	100	160	G			22			5	8						
Chromium	100	160	G		17	24		1590	829	58300				29	9	73
Copper (dissolved)	1000	20	G													
Copper	1000	20	G		31	9		40	13	306					14	12
Lead (dissolved)	4	44	G													
Lead	4	44	G		24					26					9	11
Selenium (dissolved)	50	5							9							
Selenium	50	5							9							
Zinc (dissolved)	2400	260	G			9			8	120		6		9	39	22
Zinc	2400	260	G			9			8	133		6		9	39	22
Final Field Turbidity Reading, before filtering, stated in ug/L				785E+3	432E+3	595E+3	1010E+3	1105E+3	1694E+3	479E+3	453E+3	505E+3	585E+3	617E+3	829E+3	729E+3

## NOTES:

	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

ATTACHMENT #6: GROUNDWATER CONCENTRATION GRAPHS

## Attachment 5 –Groundwater Concentration Graphs

The following graphs represent concentrations of the primary constituents of concern for VOCs and metals in key down gradient wells as compared to drinking water (DW) and ground to surface water (GSI) interface thresholds for each constituent. Note that MW-113S was installed in August of 2013 so no analytical data prior to this date is represented for this well. Non-detected concentrations are presented with a zero value for graphing purposes. Wells exhibiting all non-detectable concentrations of a constituent are not illustrated on graphs.

### Primary constituents of concern:

VOCs: Trichloroethene, Tetrachloroethene, Vinyl Chloride, and cis-1,2-Dichloroethene

Dissolved Metals: Chromium, Lead and Arsenic

Key down gradient wells: MW-109S, MW-111S, and MW-113S

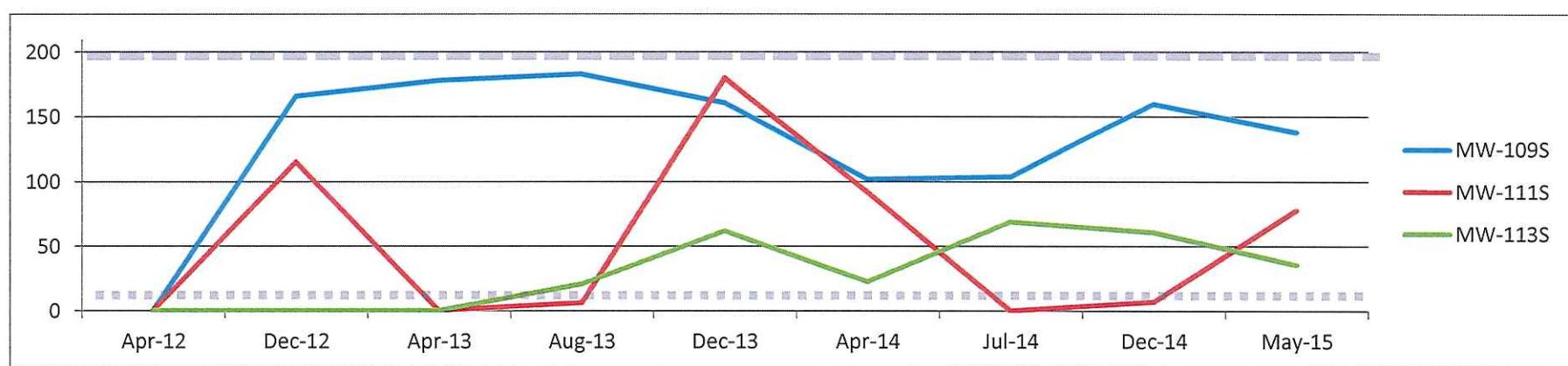
Drinking water (DW) threshold : .....

Ground to surface water interface (GSI) threshold: .....

### Primary VOCs in Down Gradient Groundwater Wells

#### Trichloroethene

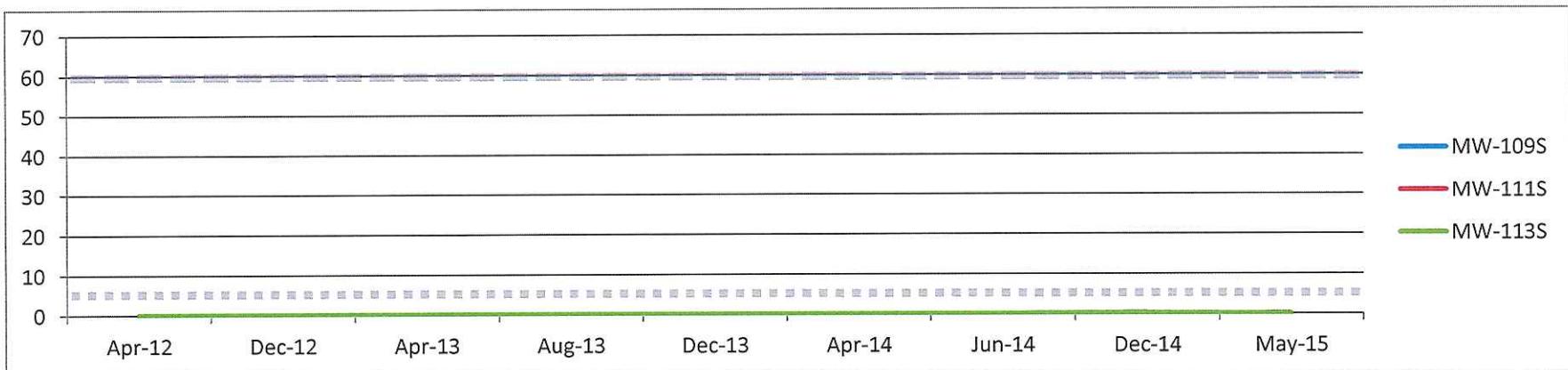
DW      5 ppb  
GSI    200 ppb



### Tetrachloroethene

DW 5 ppb

GSI 60 ppb

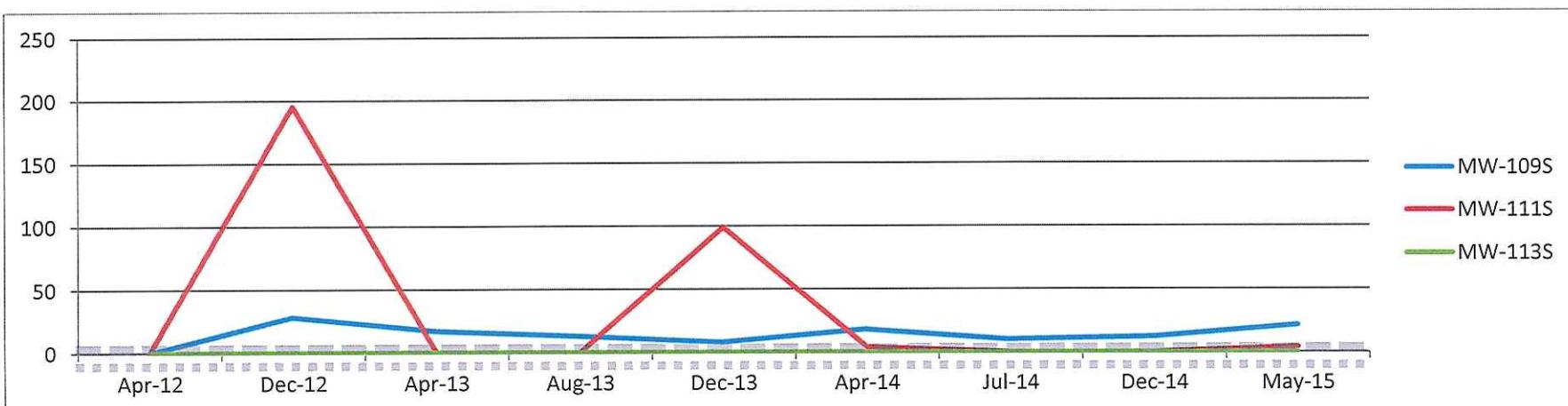


\*Note that Tetrachloroethene was detected in one up gradient well, MW-105S. MW-111S and MW-109S did not have detected concentrations of Tetrachloroethene in the sample data period.

### Vinyl Chloride

DW 2 ppb

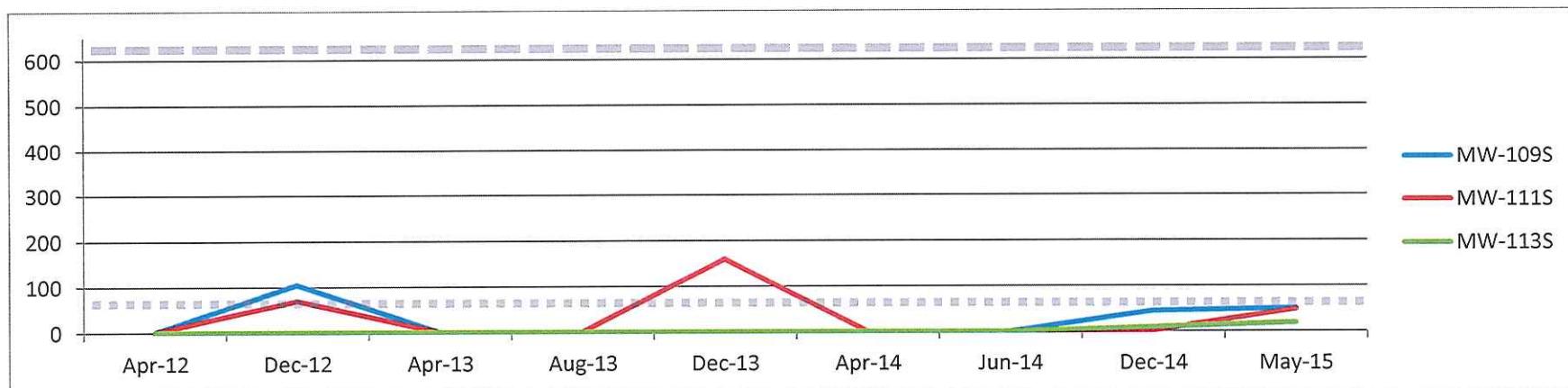
GSI 13 ppb



**cis – 1,2-Dichloroethene**

DW 70 ppb

GSI 620 ppb

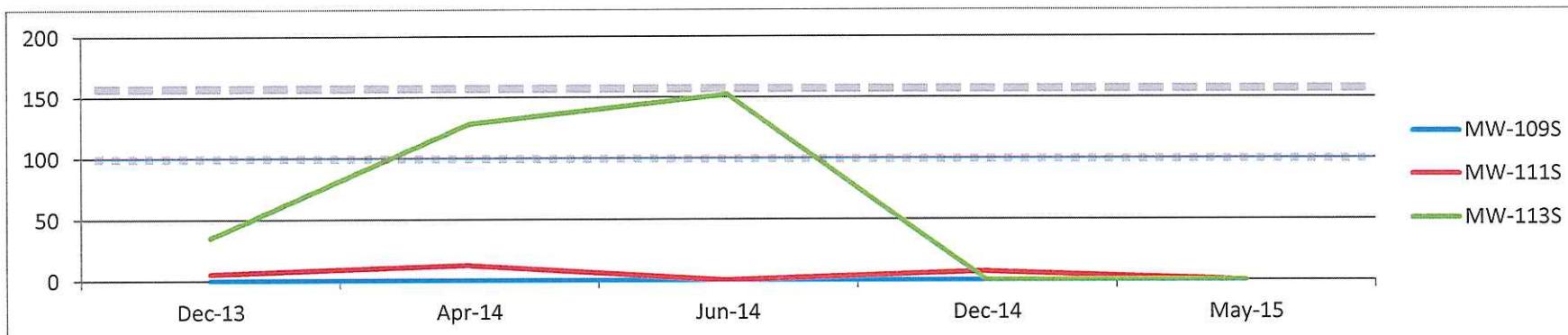


**Dissolved Metals in Down Gradient Groundwater Wells**

**Dissolved Chromium**

DW 100 ppb

GSI 160 ppb

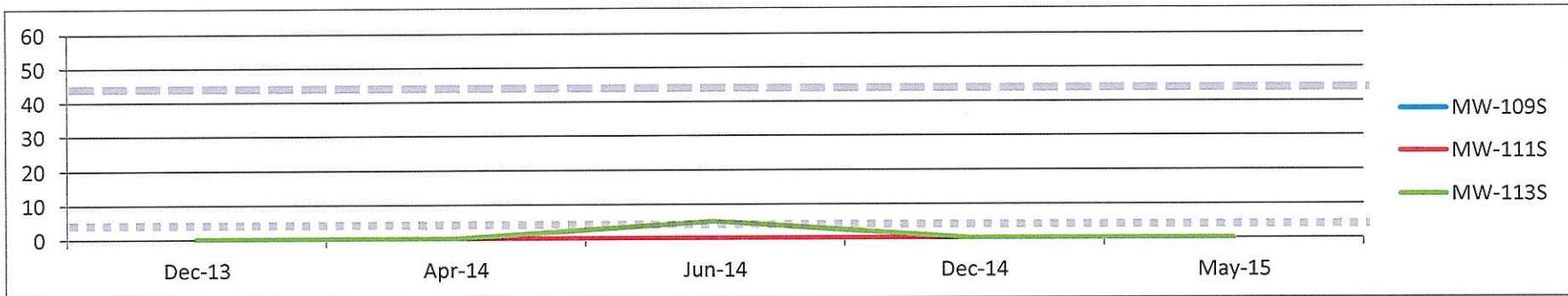


\*Note that MW-109S did not have detected concentrations of dissolved Chromium in the sample data period.

**Dissolved Lead**

DW 4 ppb

GSI 44 ppb

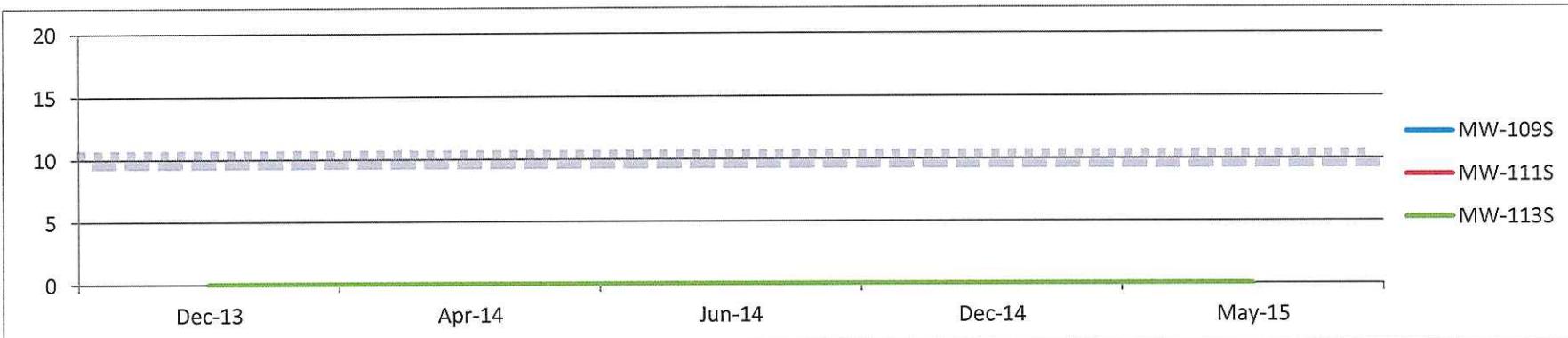


\*Note that MW-111S and MW-113S did not have detected concentrations of dissolved lead in the sample data period.

**Dissolved Arsenic**

DW 10 ppb

GSI 10 ppb



\*Note that Arsenic was not detected in any of the down gradient wells.